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**Date:** 12/1/2008 10:10 AM  
**Subject:** Comments on RRCSD Permit  
**Attachments:** RRCSD NPDES Permit/Comments/12-08

Cathy:

Here are my comments on RRCSD's NPDES Permit. As I mention, they are not complete. I intend to compare the current permit and fact sheet with the one from 2003 to see if I have any other issues and/or questions. I intend to get those to you within a week. I will then leave it to your agency to decide whether to respond to the late comments.

But I include with this email the main body of my comments on this Draft Permit. I intend to bring a hard copy into your office tomorrow with the attachments.

Please let me know you received this and whether you have any questions.

Brenda



## **Comments on RRCSD NPDES Permit #CA0024058**

Submitted by Brenda Adelman for RRCSD  
Dec. 1, 2008

Cat Kuhlman and  
North Coast Regional Water Quality Control Board  
Attn: Cathy Goodwin

Thank you for the opportunity to provide comments on this Permit for the Russian River County Sanitation District (RRCSD). RRCSD has been weighted down with an unprecedented number of issues to respond to lately (including Santa Rosa's Storm Water Permit) and other obligations, and we have had inadequate time to complete these comments to the full extent we would like. We intend to submit all we can on December 1<sup>st</sup>, but may submit additional comments by Monday, Dec. 8<sup>th</sup>. We hope you would consider the total of our comments.

There are many new provisions in this proposed permit that we feel provide increased protection over the 2003 permit including:

- Tightening of the chlorine residual requirement;
- Wet weather mass limits on B.O.D. and T.S.S.;
- Ammonia and Nitrate monitoring, interim limits, and compliance schedule;
- More stringent limit on Dichlorobromomethane.
- Copper limit and compliance schedule;
- Time limit to shift downstream monitoring point much closer to the point of discharge;
- Limitations on the use of bypass and upset conditions and the acknowledgement that the facility is improperly designed to meet all flow scenarios;
- Toxicity Reduction Evaluations;
- Groundwater monitoring program on lower Burch property;
- Reporting of Sanitary Sewer Overflows;
- Water conservation program;
- Workplan for final land discharge specifications for Total Dissolved Solids, Sodium, Chloride, and Aluminum;

This list is not exhaustive and there may be others we have missed. While we still have concerns about many aspects of this permit, we wanted to credit staff for the improved discharge regulations that we find here.

**Unregulated contaminants:**

The permit fails to acknowledge in a meaningful way however, the many unregulated chemicals that are destroying our environment much faster than regulations can keep up with them. I include several articles on the rapid worldwide extirpation of species in the last thirty years. (*"Scientists Sound Alarm for World's Amphibians: Fungus Could Bring wave of Extinctions"*, *"National Survey Reveals Biodiversity Crisis- Scientific Experts Believe We Are In Midst Of Fastest Mass Extinction in Earth's History"*, *"Silent Streams"*, *"Federal Biologists find common agricultural pesticides harm salmon, call for new restrictions"*, and *"AP Enterprise: Drugs affect more drinking water"*. Some of these articles point out the heavy risks of contaminants getting through the wastewater treatment process, and some talk about the effects of pesticides on fish and waterways that could be a result of irrigation runoff. We ask that they not be ignored.

There seems to be an inherent assumption in this NPDES process that if dischargers abide by all the rules of NPDES permits, then beneficial uses will be protected. In light of all the evidence to the contrary, it is clear our current system of addressing contaminants one at a time is not working very well.

The lower Russian River is plagued with algae blooms near the RRCSD Treatment Plant, invasive plant growth (see enclosed picture taken on 12-10-07), bacteriological contamination, and endangered and threatened species. We don't know why Monte Rio's Beach, downstream of RRCSD's discharge pipe, is plagued with the greatest bacteriological contamination, but can't help wondering if the discharge is a contributing factor (for instance, in terms of bacteria bonding with sediments and being released during summer beach activities).

While this permit attempts to address some of these issues, there is still inadequate information about what is causing the problem and to what extent the Treatment Plant and discharge may be contributing to it. (While we know that direct discharge is not allowed in the summer, the system has a history of over-irrigation on the lower Burch property in the summer time.)

Not only are we contending with the demise of the salmon and steelhead in our own Russian River, but it appears that the frogs and perhaps other species are disappearing as well. Has there ever been a comprehensive study of aquatic life in the lower Russian River? Is there any baseline with which to identify species' loss in our river? For the last 100 years the Russian River has been managed to suit the convenience of human activity and resource needs, and biotic losses may be far greater than we realize. It is all happening so fast, we wonder what will be left for the children?

In any case, there is deep concern that unregulated pharmaceuticals and personal care products are getting into our rivers and our drinking water supply and because they are not regulated, are given the stamp of approval by default. Disappearing fish species are the canaries in the mine. By unleashing all these chemicals into the environment, even though currently at what are believed to be minute levels and therefore assumed inconsequential, we are possibly affecting

human health as well. No one knows the long-term consequences of the interaction of all these chemical releases over time. It is clear however, that at the top of the food chain, it is only a matter of time before humans feel the effects as well (if we haven't already).

While it is clear that the State can't address all these issues in this permit, it is important to at least acknowledge the scope of the issues in a way that makes their potential significant impact known and leaves the door open for future regulation. It is frustrating that they usually get swept under the rug and are seldom mentioned in discussions about fish species endangerment in our own river. The new report referred to in the article, "*How to Protect the Future*" by Tim Montague asks important questions about how to affect the protection of future generations. We encourage this permit to address this issue.

Specifically, the job of this permit is to establish effective regulation governing the cleaning up and discharge of our waste. We would hope that the limitations of current regulations to achieve a fully healthy watershed should become part of the conversation about future direction of the NPDES process. The main goal should be the preservation of our water environment for future generations. We see this view as an attitude change from emphasis on protection for present generations to protection of future ones. What future water quality goals can be framed that are still in keeping with realities of the current regulatory system?

### **Capacity and Flood Plain Issues...**

Fifty percent of the Russian River County Sanitation District is in a flood plain. It is also a vacation area with thankfully only 65%-75% occupancy in the wintertime. While there has been a great deal of remodeling and dwelling size expansion in the years the system has been on line, there has been very little new development, and summer flows have remained fairly constant.

The problems of the system are fairly unique, yet this uniqueness is only faintly conveyed in the permit. Standard capacity measures only partially describe the circumstances they serve. There is no real flow analysis in the permit attached to the actual activities going on (or not going on) in the area at different times of the year although the permit acknowledges the limits of irrigation capacity in the summer time. (We have not seen the Report of Waste Discharge, which was unavailable to us at the time we asked about it. That document may have some of this information. It is neither on Regional Board's website or SCWA's. It would be good to have it available to the public. We would have liked to look at it before submitting these comments.)

It would be very helpful to have a water balance analysis conducted for the system as part of the permit process. Perhaps a separate study could be required of SCWA fully explaining the irrigation and storage components in relation to various flow scenarios at different times of the year. Unfortunately, when considering system expansion last year, SCWA divided RRCSD components into three different EIRs and three different review processes. Nowhere did they conduct a comprehensive analysis of the entire system,

including proposed additional components needed to hook up other communities and areas that may be considered for hook up and how future capacity needs would thereby be met.

Dry weather flow is generally measured as 30 consecutive days with the lowest flow. This indicates the time when no infiltration takes place, generally in September. However, this doesn't account for the huge population increase in the summer due to summer recreation activities in the area, especially on weekends, when flows can fluctuate a great deal from one day to the next. Then there is a significant drop in flows in September, when activities wind down. This wouldn't matter if the system was fully adequate, but the irrigation system is extremely problematic and has resulted in problems getting rid of all the water in a legitimate fashion. We can't help but wonder if there are spills we never hear about.

While the system can usually handle current flows in the summertime, (as far as we know) concerns exist not only about problems with future development projections, but the deceptive impression that capacity is adequate to add other communities and areas to the system. By the permit's lack of careful capacity analysis during all seasons, there are false assumptions being passed around about system capacity as exemplified in the proposed new County Housing Element and proposals to hook up other communities. It is very misleading to use the very lowest amount of yearly flow upon which to indicate growth potential in the system, while failing to address impacts to the system from large population fluctuations in the summer and winter floods that follow.

It would be helpful to better understand the way SCWA manages the lower irrigation area on the Burch Property to know whether irrigation needs to be cut back and to what extent additional irrigation is needed. We'll go into more detail on this later, but for now, suffice it to say is that the EIR certified by the County on the Irrigation Project (mistake on this in text of permit) was for a project that can't be built. It was far too extensive in scope and far too expensive and totally inappropriate for the needs of the community. (Multiple pipelines to the Graton Area from the Treatment Plant.)

In certifying the EIR, Supervisors made it very clear that they were NOT selecting a project. We have not heard anything about irrigation since they took that action. There is very high ground water in our area, and it is very difficult to find appropriate soils upon which to irrigate without affecting groundwater. Long pipelines to outer areas where this is not the case, are far too expensive for our small community.

The Occidental/Camp Meeker pipeline project to RRCSD was not adopted this last year because of very high cost and also because of the poor analysis of environmental impacts. In addition, in 1998 SCWA District Expansion parcel map showing 750 parcels in the hills between Guerneville and Northwood, for potential addition to the District with only half of them already developed. We know that the Regional Board has indicated favorable support for such projects, but thus far everyone connected to this issue has avoided an integrated

approach, which addresses the reality of conditions including sliding hillsides, floods, high groundwater tables, greatly fluctuating populations, and inadequate infrastructure sites.

The October, 2008 Draft Housing Element (P. HE-53, enclosed), in discussing RRCSD capacity for new growth, states that average dry weather flow is .31 gpd. Since .51 gpd is allowed, it assumes there is plenty of capacity for an additional 1,775 ESDs, and will accommodate all potential growth in the next five years. This serves as an encouragement to those wishing to develop and is based on information in the permit.

This assumption allowed for an out of service agreement of 24 ESDs for Applewood Restaurant and Resort. Two major new developments are being proposed for Guerneville, which would also have a major impact. There is a 48 unit low-income housing unit planned right in downtown Guerneville where it floods. (see enclosed article for details). There is also a major hotel complex planned on the old Dubrava property consisting of 100 hotel units and ten two-story bungalows (see enclosed article).

Furthermore, there has been serious talk by Regional Board and staff of hooking Occidental, Camp Meeker, Monte Rio, and many houses on septic in between, to the RRCSD. While we know there are probably septic problems in the area, the RRCSD has many obvious problems that must first be carefully addressed. The problem of hooking up septs (at huge cost) to a wastewater treatment system that regularly fails during flood events, may not provide the environmental benefits that make it worth the financial sacrifice.

There is another capacity issue we are concerned about. On page 14 of the permit it states that (I.) *"The peak daily wet-weather influent flow to the WWTF in excess of 3.5 mgd is prohibited."* On page 5 it refers to the *"peak wet weather treatment capacity"* and on page F 37 it refers to *"maximum sustained peak wet weather capacity"*. What does this mean exactly? It comes up a lot. Can the system operate at the peak for days in a row at 3.5 mgd? For how many days? Are there any limits to the amount of time this can go on? In January and March of 1995, I believe that the system was inundated by about 10 mgd for several days. This is a significant issue that is poorly defined.

In January of 2006, the Treatment Plant experienced multiple problems. (I enclose the self-monitoring report for Dec. '05 where storm operations from Dec. 22, 2005 to Jan. 10, 2006 were described. At one point they had to operate the plant at a flow of 4.2 mgd (for a short time). The report states (p.2) *"The effluent quality deteriorated as the river came up and the collection system became inundated with water from the river."* At this point, the river was only about 28 feet but the flood had peaked at about 42 feet. In January and March of 1995, it was well over 40 feet and in 1986 the river was almost 49' (or a little over). In 1986 they had to shut down the water systems for several days because of contamination.

This permit acknowledges the serious problems of RRCSD during floods. What concerns us is the assumption that they can be fixed and new hookups allowed.

It is questionable whether a 2.5 mg storage basin can solve all problems. In the 1998 EIR that was not certified, it called for a 30 mg storage facility to solve the problem during all floods. And for the record, we believe that the permit is mistaken that the Storage Basin EIR was approved. (Commenters were never notified of release of the Final EIR nor of any meeting to certify the document. We and others had submitted significant comments and should have been notified of certification. Also, we generally track BOS agendas and never saw such an item.) The final EIR was never released to our knowledge.

We had a professional geologist look at the EIR and he noted that there had been no study of the hillsides above the planned site. These hillsides are prone to failure (slides) and the planned site may not be feasible. There may not be good sites nearby that are affordable and feasible since most of the area is steeply sloped and prone to landslides. The EIR should have completed further studies on this issue. We never got a response.

In regards to water balance, on page 36, in the section on "Adequate Capacity", it calls for flow analysis when the system is deemed within four years of capacity. Because the determining perimeter is artificially low (September flows), if the system is not expanded, it will be years before a water balance flow model is required.

But perhaps the Regional Board knows something that is not revealed in this permit. What are the precise plans for expansion of the District? When the Camp Meeker/Occidental pipeline was being considered, Regional Board staff made it clear they supported not only the hookup of Camp Meeker and Occidental, they wanted the hookup of all the properties along Bohemian Highway to the Treatment Plant as well. Why is none of this revealed in the permit?

Why is there no comprehensive airing of all the pros and cons of the various wastewater supply options in West County, including all the negative impacts that would be brought about by widespread wastewater discharge pipelines? West County has an extremely fragile environment that would be negatively impacted by such a scenario and no one wants to fully address it. We are tired of the rationale that more hookups would provide more money, which in turn provides more service. This paradigm never works ultimately and systems after ten years or so fall into disrepair and subsequently pollute.

On page 36 under "Adequate Capacity" it also calls for comparing design flows with highest flows, but it does not address longest flows. In other words, what happens, as it did in 1995 and 1998 when there are sustained periods of high flows? As I asked before, what if 3.5 mgd flow rates continue for days? In February, 1998 the flows weren't particularly high most of the time and the river only flooded very briefly at a low lever, but it rained every day of that month and caused serious problems at the Treatment Plant (subject of lawsuits). In fact, on top of everything, that was when a major slide at the Treatment Plant occurred, making the problem even more severe. How does the permit address and protect from those kinds of scenarios?

## Comments on Fact Sheet

I'm running out of time and from here on in, will go through the Fact Sheet and make comments as per my notes. In the coming week, I want to compare the permit and Fact Sheet for the 2008 permit with the 2003 permit. I noticed numerous differences in my cursory review.

The Third Aeration Basin is used for aeration in the summer and emergency storage in the winter. Why is it not needed for aeration in the winter? How is it disinfected completely after emergency storage after having been used for storing raw sewage? Again, what is meant by "sustained" flow rate of 3.5 mg? Sustained for how long? (This also comes up on F-8, top of page.) After how much time might the ponds overflow? Also, what is the pipeline storage capacity when used for that purpose during high winter flows?

Page F-6 in second paragraph states that infiltration and inflow is estimated at 0.195 mgd based on 2004 to 2006 flow data. I looked at the data and determined that in 2006, a very wet year, the average infiltration and inflow appeared to be 0.746. In 2005, a much drier year, it was about 0.236. This is considerably more than what is mentioned in the Fact Sheet.

Page F-10: As mentioned before, the Irrigation EIR was certified (also see page F-11 & F-14-bottom and F-51), but no project was selected and upon certification, Supervisors ordered SCWA to come up with a greatly scaled down project than what had been proposed. To our knowledge, the storage EIR has never been finalized. Since we gave extensive comments, we think we should have been informed if the Final EIR was available and we were not.

Also, on this page it states that the storage basin planned is to be 3.5 mg. It is my understanding that it was scaled back to 2.5 mg because of geological concerns. How much storage is necessary under all flow scenarios? I remember that the 1998 EIR called for 30 mg of storage to adequately treat all flow levels. On what basis would you determine that 3.5 would be adequate and how do you feel about the adequacy of 2.5 mg?

On Page F-14 it states, "*The impact of settleable solids results when they collect on the bottom of a waterbody over time, making them a persistent or accumulative constituent.*" Is it possible that bacteria resides in the sediments and is re-suspended in the summer when the bottom is stirred up by recreationists? Could that explain some of the high bacteria numbers in lower river beaches? Could they be a result of upper river wastewater dumping?

Page F-16: Does the second paragraph on this page apply to unregulated chemicals such as pharmaceuticals? In other words, are they prohibited from discharging pharmaceuticals without a permit to do so? If this is wrong, please explain the meaning of this section further.

Page F-18: We have serious problems with the 30 day averages of both 1% discharge limits and 0.51 mgd average irrigation limit. Where is it demonstrated and on what basis is this considered safe since there are many unregulated chemicals in the wastewater whose affects are unknown? According to this Fact

Sheet there has been no winter since 1995 that the system has not violated some regulation. How come this is not considered when setting these generous limits?

There is more information that some unregulated chemicals bioaccumulate and cause serious harm in small doses. How can it be assumed that 30 day averages are sufficiently protective? Furthermore, how does this mode of measurement interact with wastewater from other dischargers? Why is there no outer percentage that can be discharged in a single day given that we don't know when others will do the same?

Page F-42 and F-44: under BOD: it states that all discharges shall be treated to tertiary standards because the discharger uses the same basin for discharges to land and surface waters and stores both tertiary water and raw sewage in the aeration basin. We strongly support the tertiary requirement. Yet we wonder if this is referring to the aeration basin, which I thought was used for raw sewage during high winter flows and storage of tertiary irrigation water in the summer? This dual use of the aeration basin needs to be more thoroughly explained.

P-54: middle paragraph: Here it states that SSO's to land will not have a serious impact if they are under 100 gallons. How is this amount determined? Is this a matter of convenience, or is there documentation that proves the lack of impact? We would like to see the information. What if the spills are on land that has been chemically treated? What if it is near a creek or storm drain? How can you possibly guarantee that no harm will come from any 100 gallon spill? I would give this status perhaps to ten gallons, but in light of the incidental run off Amendment coming up, we wonder if this is the "incidental" amount you have determined? That's more than my whole water use for a day.

Page F-55: in section on "adequate capacity": We have problems with the assumption that this permit will allow adequate planning for measures that would ensure adequate capacity for protection of public health and water quality. In light of the articles we submit, we don't think this permit addresses the issue of unregulated contaminants. We look forward to seeing the Tetra Tech Report on infiltration and inflow. In fact on the bottom of page F-56 it states, *"It is evident that flood control and flow reduction measures are necessary on an on-going basis and prior to storm events to minimize the potential for sanitary sewer overflows and bypass events from occurring."*

Page F-57: We wonder how SCWA met compliance schedules for the disinfectant system, the irrigation expansion, and the additional storage? Every time I looked, compliance was moved out. It is also of great concern that this permit seems to have been misinformed about the status of EIRs for the system.

Page G-1: we are discouraged that RRCSD is being asked to "minimize" irrigation runoff rather than PROHIBIT it. It seems very inappropriate that we should "jump the gun" on the new proposed Basin Plan Amendment that just came out. It seems as though you are predisposed to authorize the practice, no matter the results. We would like to see data that addresses all our concerns and PROVES the practice safe!

Page G-2 (top): It's hard to believe that the Board will always receive accurate information, especially in remote areas. Again, is "incidental runoff" interpreted to be amounts under 100 gallons?

Page G-3: What about requiring set backs of spay that keeps irrigation water out of public roadways? If I didn't quickly close my window last summer, I would have been hit in the face by a high power spray of wastewater on Guerneville Rd. No one ever got back to me when I reported it to your staff.

In spite of these criticisms, there is much that is good in this permit (as noted on the first page) and an improvement over the last one. We look forward to your response to our concerns.

